~~S E C R E T~~

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SAFE

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24 AUG 1983

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MEMORANDUM FOR: Comptroller

VIA: Deputy Director for Administration
Deputy Director for Intelligence

FROM: [redacted] 25X1
Director of Data Processing

SUBJECT: Response to HPSCI Request for SAFE Development Plans

REFERENCE: Memo to DDs from Compt, Subj: Additional Requirement for Congressionally Directed Study, dtd 2 Aug 83 (DD/A 83-1608/2) (ODP 83-1130)

Attached is the response to the HPSCI request for SAFE development plans. If you have any questions or require additional information, please contact [redacted] of my 25X1
staff on extension [redacted] 25X1
25X1

Attachment:
SAFE DEVELOPMENT GOALS,
dtd 24 August 1983

This Document becomes UNCLASSIFIED when separated from attachment.

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25X1

C/MS/ODP [redacted] (MSlib2)
(Attachment in MSlib under SAFE Development Plans) (24 August 1983)

Distribution: (all w/att)
Orig - Addressee
2 - DDA
1 - DDI
2 - D/ODP
2 - ODP/MS
2 - ODP/Registry

24 AUG 1983

Response to HPSCI Requirement for

SAFE Development Plan

SAFE DEVELOPMENT GOALS

The purpose of SAFE is to provide needed data processing support to assist the intelligence analyst in coping with many sources and large quantities of data available on given subjects. Over the past few years there has been an increased emphasis given to providing more coverage, increased capacity and greater sophistication to our information collection capabilities. SAFE will assist the analyst in the time-consuming tasks of collecting, organizing, collating, editing and coordinating information from a burgeoning number of sources. [redacted] 25X1

As one means to significantly improve the flow of intelligence, SAFE will provide automatic processing and dissemination of incoming electrical messages. SAFE users will develop lists of words or phrases called profiles which will be used to direct relevant traffic to the individual or office. These user profiles can also be structured to alert the analysts when specific intelligence data of topical sensitivity is received by their respective agency (CIA/DIA). [redacted] 25X1

In addition to improving the dissemination of electrical messages, SAFE will provide the capability for users to read, annotate, route (to other analysts or offices) and index intelligence electronic documents. SAFE will facilitate analysts' electronic communications with one another. [redacted] 25X1

The capability for analysts to develope and maintain individually created electronic work files will be provided by the system. These work files can be defined and structured by the user to meet individual data storage and retrieval requirements. The user will also be able to define output formats so that data presentations at individual workstations will emphasize relevant information. [redacted] 25X1

Another major SAFE improvement will be the provision of a single access language to support the current intelligence function as well as research of reference data. On-line access to reference data will allow SAFE users to research not only the indexed files,

[redacted] 25X1

structured records, order of battle files or installation files, but also to reach abstracts of documents, and full texts of electrical messages, all through a single user language. The SAFE User Language (SUL) will provide rapid and effective query and file maintenance across diverse data bases. 25X1

Finally, SAFE will significantly improve the mechanism for producing finished intelligence. For both agencies, user will have the capability to compose and print finished intelligence reports. The provision for on-line text composition will allow users to write memoranda, articles, or reports, and then print the textual or structured data in a variety of output formats. The ability to route intelligence documents electronically to other analysts or supervisors will facilitate coordination in a fast paced environment and will thus serve to compress time requirements in the production cycle. 25X1

SAFE HARDWARE

The hardware supporting SAFE has been selected with a view toward its progressive evolution to keep pace with expanding capabilities. The intent is to take full advantage of advances in technology where appropriate and feasible. As the SAFE user community expands, the system hardware will be upgraded. The initial SAFE system hardware configuration is viewed as three separate systems: CIA (SAFE-C), DIA (SAFE-D), and the Development System. 25X1

1. SAFE-C System

The initial hardware configuration for the SAFE-C system consists of three IBM 3083 model J processors. All three processors are used for production. An IBM 3211 printer is switchable to any of the processors. The processors share access to a pool of eight IBM 3420 tape drives (6250/1600 BPI) through four IBM 3803 controllers. All remote communications facilities are provided through three COMTEN 3690 front-end processors, each with dedicated interfaces to each of the 3083 processors. The SAFE-C processors share the access to thirteen IBM 3380 direct access storage systems with a total of 32.5 gigabytes, sixteen IBM 3350 Direct Access Storage Devices (DASD) with a total of 9.6 gigabytes, and two STC 4305 solid state drum systems, each with 45 megabytes. 25X1

2. SAFE-D System

The SAFE-D system initial hardware configuration consists of two IBM 3083 model J processors. Both processors are used for production. An IBM 3211 printer is switchable with either processor, and a pool of eight IBM 3420 tape drives (6250/1600 BPI) are accessible through two controllers. Nine IBM 3380 storage systems with a total of 22.5 gigabytes, six IBM 3350 DASD with a total of 3.6 gigabytes, and two STC 4305 solid state drum systems with a total of 90 megabytes are shared by the DIA processors. The remote communications facilities are provided through two COMTEN 3690 front-end processors. 25X1

3. Development System

An additional IBM 3803 J processor initially serves both as a DIA back-up processor and as a software development system for both the CIA and DIA systems. This processor has access to four IBM 3420-8 tape drives, seven IBM 3380 storage systems with a total of 2.4 gigabytes, and an STC 4305 solid state drum system with total storage capacity of 45 megabytes. The development system utilizes the DIA Comten front-end processors for communications. 25X1

4. Hardware Acquisition Plans for FY-84

Plans for FY-84 for hardware acquisitions include upgrades to existing CPUs and purchase of one new CPU by CIA. Funds have also been allocated for the purchase of terminals, printers and Comten front-end processors to provide for additional users. Additional DASD will also be acquired as a function of the increase in users and as additional development capacity is required. [redacted] 25X1

5. Hardware Acquisition Plans for FY-85

In FY-85, current plans call for upgrades to all CPUs by both CIA and DIA as more users are added and additional software deliveries come on line. There will also be increases in the number of terminals and related support equipment as the total number of users for both Agencies are increased. The breakdown of funds for these acquisitions for both FY's is covered in the budget submissions of the respective Agencies. [redacted] 25X1

SAFE SYSTEM DESCRIPTION

System implementation will be conducted in incremental deliveries. Each delivery, building on an existing preliminary capability, provides additional functionality to the user. The Project Plan describes the five deliveries which have been identified to date. Subsequent deliveries may be defined later. SAFE development began with Early Capability effective in March, 1983. Project development is scheduled to continue through February, 1986. During that time span five incremental deliveries are planned for implementation. A summary of the functional capabilities included within each incremental delivery as well as proposed delivery dates for both CIA and DIA are documented in the remaining paragraphs of this section. 25X1

1. SAFE Early Capability: SAFE-C, March 1983; SAFE-D, June 1983

The SAFE Early Capability provides both DIA and CIA users a SAFE-like capability supported by several separate applications packages: Profile, Mail, Text, and Automatic Information Management (AIM). The Profile software allows users to list words and phrases in "interest profiles" and then logically associate these profile elements in a query expression. These profiles, which may represent either individuals or organizations, serve to select electrical messages for dissemination to respective users "mail files". Once messages (documents) are placed in mail files, the user may permanently "save" messages for retention. He may also annotate and route messages to other users. Messages may also be deleted from mail files or printed to provide hard copy. The third software package, Text, allows the user to search the complete text of all documents maintained in a master data base or individual private files. The private files have been created as a result of messages "saved" during the users' review of his mail file. In addition to these three software packages supporting message processing and dissemination, the SAFE Early Capability through the use of AIM, also provides the user text editing functions that allow for the creation, editing, formatting, routing and printing of intelligence reports, memorandums and other documents. 25X1

2. Delivery 1: SAFE-C; SAFE-D, Fall 1983

Delivery 1 will provide an improved algorithm for electrical message dissemination processing and one level of interprofile logic (ability of a user's interest profile to reference another interest profile). In addition, Delivery 1 will provide access to INQUIRE, text data base management system (DBMS) and M-204, structured file DBMS. The access to these commercial DBMSs will be limited to a small subset of the user population as well as system development personnel. The M-204 DBMS will be utilized to support the conversion of those DIA data bases, programs and products for which DIA/RSO has assumed responsibility. These data bases are currently supported on the DIA on-line system (DIAOLS). 25X1

3. Delivery 2: SAFE-C, November 1984

Delivery 2 provides for the initial integration of comprehensive routing and filing functions with user mail files. In addition to being able to generate and edit text data, users will be able to route messages and associated annotations to other SAFE users. Documents may be identified by a user to route to another user during the browse of his respective mail file. Documents stored in mail files can be listed and, by user selection directly displayed. In Delivery 2, SAFE users will also be able to store predefined queries as well as access lists to mail files. These access lists are maintained by the individual owners of mail files. SAFE text editing capabilities will be enhanced by a host-based word processor. The text editing capability will be integrated with that SAFE software which provides for the routing of messages and internally composed documents. 25X1

4. Delivery 3: SAFE-D, March 1985; SAFE-C, June 1985

Delivery 3 will include the augmentations to the capabilities introduced in Delivery 2 and an initial capability for DIA to reprocess indexed messages through the SAFE system in support of DIA's DoD message retransmission function (Second Pass Dissemination). CRD and HUMINT files will be brought up on the SAFE-D system. However, a subset of CRD and HUMINT files will remain on DIAOLS to support DoD access. This condition will exist until there is SAFE connectivity to the DoD commands. A prototype DoDIIS Network Front End will be available to support connections to other DoDIIS test sites. DIA/RSE will be responsible for the DoDIIS NFE to include an interface that will connect the DoDIIS NFE to the existing IDHSC-2 network and COINS. 25X1

Delivery 3 for CIA and DIA will allow the user to file and maintain documents in the INQUIRE index file. In addition to filing documents in AIM data bases, INQUIRE supports data inversion which allows the user to rapidly search and maintain individual document data bases. Users will be able to enter free text annotations to index records or specific terms to keyword fields. Access lists to INQUIRE files will allow the file owner to control read/write access to individual files or delegate that responsibility to other users. Additionally, a command history log which maintains a history of each command or series of commands entered into the system by a user during an interactive session will be available. 25X1

5. Delivery 4: SAFE-D, August 1985

The DIA interface to DoDIIS will be completed in this delivery. All of the AIF, DIOBS, ELINT, and crisis management files and products will be brought up on the SAFE-D system. These files will also remain in DIAOLS for a period of time to provide for parallel operations and to insure the integrity of the conversion effort. In addition, the user interface will be enhanced to include connectivity to the structured files in M204 under a single user log-on and user language construct. 25X1

6. Delivery 5: SAFE-C, December 1985; SAFE-D, February 1986

The SAFE Index File capabilities will be completed for this delivery. Full index fields and the ability to relate multiple occurrences of index phrases to one another will be provided. Transaction files will exist to allow for delayed processing of transactions to those files supporting message processing and dissemination. Validation criteria will support file maintenance. The CIA Central Index File previously maintained in CIA on a separate system, will be brought up on SAFE-C along with its products (e.g. keyword occurence lists). 25X1

The user interface will be enhanced to support multiple activities in multiple screen configurations (e.g., document in one split and transaction in another split). Synonym list files (i.e., named collection of one or more synonyms logically "OReds" together) will be available. The text composition function (i.e., host-based word processor) will be totally integrated into the user interface and enhanced based upon requirements generated from preliminary use during previous deliveries. Electrical messages that arrive in multiple sections will be combined and processed as a single document for message dissemination and storage. 25X1

SAFE DEVELOPMENT COSTS
(THEN YEAR DOLLARS $ MILLIONS)

	CIA	DIA
FY-82 (4th quarter)		
FY-83		
FY-84		
FY-85		
FY-86		
FY-87		
FY-88		
TOTAL		

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